

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	("6398883").PN.	USPAT	OR	OFF	2006/04/05 15:18
L2	2	(("5460317") or ("5813592")).PN.	USPAT	OR	OFF	2006/04/05 15:29
L3	385	228/2.1.ccls.	US-PGPU B; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/05 16:42
L5	1197	156/580.ccls.	US-PGPU B; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/05 15:32
L6	630	156/73.5.ccls.	US-PGPU B; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/05 15:32
L7	703	228/112.1.ccls.	US-PGPU B; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/04/05 15:33

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L8	2443	L7 or 3 or 5 or 6	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 15:33
L11	637	428/615.ccls.	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 16:43
L18	3	((electron near5 beam)or fusion) near50 (bond\$3 or join\$3 or weld\$3) with((grain near50 refin\$5) or (surface near5 treat\$4))with aluminum	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 17:45
L19	312	((electron near5 beam)or fusion) near50 (bond\$3 or join\$3 or weld\$3) with((grain near50 refin\$5) or (surface near5 treat\$4))	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 17:12
L20	61	friction near5 stir and (fusion or (electron near5 beam)or arc or submerg\$3 or inertia) near50 (bond\$3 or join\$3 or weld\$3) and ((aluminum near5 alloy) or (lightweight near5 alloy) or (cold near5 work\$3 near5 metal))and ((grain near50 refin\$5) or (surface near5 treat\$4))	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 17:09

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L21	8	friction near5 stir same (fusion or (electron near5 beam)or arc or submerg\$3 or inertia) near50 (bond\$3 or join\$3 or weld\$3) same ((aluminum near5 alloy) or (lightweight near5 alloy) or (cold near5 work\$3 near5 metal))same ((grain near50 refin\$5) or (surface near5 treat\$4))	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 17:10
L22	38	8 and friction near5 stir and (fusion or (electron near5 beam)or arc or submerg\$3 or inertia) near50 (bond\$3 or join\$3 or weld\$3) and ((aluminum near5 alloy) or (lightweight near5 alloy) or (cold near5 work\$3 near5 metal))and ((grain near50 refin\$5) or (surface near5 treat\$4))	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 17:10
L23	33	8 and friction near5 stir and fusion near50 (bond\$3 or join\$3 or weld\$3) and ((aluminum near5 alloy) or (lightweight near5 alloy) or (cold near5 work\$3 near5 metal))and ((grain near50 refin\$5) or (surface near5 treat\$4))	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 17:10
L24	4	11 and friction near5 stir and (fusion or (electron near5 beam)or arc or submerg\$3 or inertia) near50 (bond\$3 or join\$3 or weld\$3) and ((aluminum near5 alloy) or (lightweight near5 alloy) or (cold near5 work\$3 near5 metal))and ((grain near50 refin\$5) or (surface near5 treat\$4))	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 17:10

## EAST Search History

L25	312	((electron near5 beam)or fusion) near50 (bond\$3 or join\$3 or weld\$3) with((grain near50 refin\$5) or (surface near5 treat\$4))	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 17:11
L26	0	((electron near5 beam)or fusion) near50 (bond\$3 or join\$3 or weld\$3) with((grain near50 refin\$5) or (surface near5 treat\$4))with (aluminum near5 alloy)	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 17:13
L27	36	(electron near5 beam) near50 weld\$3 with((grain adj refin\$5) or (surface adj treat\$4))	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 17:17
L28	36	(electron near5 beam) near50 weld\$3 with friction adj stir	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 17:44
L29	160	(laser or arc or submerged) near50 weld\$3 with friction adj stir	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 17:44

## EAST Search History

L30	40	29 and ((grain near50 refin\$5) or (surface near5 treat\$4))	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 17:45
S1	693	228/112.1.ccis.	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/04/05 15:29
S2	15	S1 and (friction near50 weld\$3) with fus\$3 and grain near50 refin\$5	US-PGPU B; USPAT; EPO; JPO; DERWEN T; IBM_TDB	OR	ON	2006/02/14 16:58